AF

Docket 74892PRRS
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Kenneth A. Parulski, et al

DIGITAL CAMERA PROVIDING IMAGE PROCESSING FOR AN ATTACHABLE PRINTER

Serial No. 09/800,158

Filed March 06, 2001

Group Art Unit: 2612

Examiner: Brian J. Jelinek

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Jeanette Kramarz

September 22, 2006

Date

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

AMENDED APPEAL BRIEF TRANSMITTAL

Enclosed herewith is Appellants' Amended Appeal Brief for the above-identified application as requested by the Examiner.

The Commissioner is hereby authorized to charge any appropriate fee to Eastman Kodak Company Deposit Account 05-0225.

A duplicate copy of this letter is enclosed.

Respectfully submitted,

Attorney for Appellants
Registration No. 40,802

Roland R. Schindler II/jrk
Telephone: 585-588-2736
Facsimile: 585-477-1148
Enclosures

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Kenneth A. Parulski, et al

DIGITAL CAMERA PROVIDING IMAGE PROCESSING FOR AN ATTACHABLE PRINTER

Serial No. 09/800,158

Filed 06 March 2001

Group Art Unit: 2612

Examiner: Brian J. Jelinek

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Jeanette Kramarz

September 22, 2006
Date

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

Response to Notice of Non-Compliant Appeal Brief

This is in response to the Notice of Non-Compliant Appeal Brief mailed August 23, 2006. The enclosed Appeal Brief has been amended as requested by the Examiner.

Respectfully submitted,

Attorney for Applicant(s)
Registration No. 40,802

Roland R. Schindler II/jrk
Rochester, NY 14650
Telephone: 585-588-2736
Facsimile: 585-477-1148

Docket 74892PRRS
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Kenneth A. Parulski, et al

DIGITAL CAMERA PROVIDING IMAGE PROCESSING FOR AN ATTACHABLE PRINTER

Serial No. 09/800,158

Filed 06 March 2001

Group Art Unit: 2612

Examiner: Brian J. Jelinek

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Jeanette Kramarz

September 22, 2006
Date

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

AMENDED APPEAL BRIEF PURSUANT TO 37 CFR 41.37 and 35 U.S.C. 134

Attorney for Appellants

Roland R. Schindler, II

Registration No. 40,802

EASTMAN KODAK COMPANY

Patent Legal Staff

343 State Street

Rochester, New York 14650-2201

Telephone: (585) 588-2736

Facsimile: (585) 477-1148

Table Of Contents

APPELLANT'S BRIEF ON APPEAL

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the Examiner's Final Rejection of claims 1-14 which was contained in the Office Action mailed January 24, 2006.

A Notice of Appeal was filed May 19, 2006.

Real Party In Interest

As indicated above in the caption of the Brief, the Eastman Kodak Company is the real party in interest.

Related Appeals And Interferences

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

Status Of The Claims

Claims 1-14 are pending in the application and stand rejected.

Appendix I provides a clean, double-spaced copy of the claims on appeal.

Status Of Amendments

Claims 1-14 stand as amended on June 30, 2005. The Appendix provides a clean, double-spaced copy of the claims on appeal Appendix I provides a clean, double-spaced copy of the claims on appeal.

Summary of Claimed Subject Matter

Independent claim 1 claims a digital camera for use with a separate color printer having predetermined characteristics. The camera comprises: a housing (Pg. 5, Lns. 1-20[1], Pg. 17, Lns. 1-12; Ref: None Figs. 1, 3) an image sensor adapted to capture analog image data (Pg. 4, Lns. 24-29; Pg. 7, Lns. 9-20; Ref: 12, Figs. 1 and 4); an analog-to-digital converter adapted to convert the analog image data captured by the image sensor to digital image data (Pg. 7, Lns. 26-29; Ref:

[1] Fig. 1 illustrates a digital camera 10. A housing is not specifically called out with a reference number. In general, it is well understood that a housing is inherent in a digital camera. (See Final Rejection Pg. 4, Lns. 1 – 4.) However, in this matter, the presence of a housing is evident from the specification in that digital camera 10 is separately illustrated in Fig. 1 from the printer 30 which is illustrated in Fig.2 with both providing interfaces to enable communication therebetween. Such interfaces are known to those of skill in the art as a place at which independent systems meet and act on or communicate with each other. Such independence indicates the use of a housing to contain each device. Further, the discussion at page 5, lines 8 – 20 related to Fig. 1, indicates that "according to the present invention, further processing necessary to enable an image to be printed is to be performed using the resources that are already in said camera 10" clearly indicating that such resources are within a housing.

316, Fig. 4); an image processor adapted to perform first processing and compression of the digital image data to create a first-processed digital image file (Pg. 4, Lns. 24-30, Pg. 5, Lns. 1-2, Pg. 8, Lns. 2-6, Pg. 8, Lns. 21-30, Pg. 9, Lns. 1-21, Ref: 18, Figs. 1, 4 and 5); and a digital memory in the camera housing (Pg. 5, Lns. 1-7, Pg. 8, Lns. 7-20; Ref: 20, Ref: 330, Ref: 326, Fig. 4), a plurality of first-processed digital image files from the image processor being stored in the digital memory (Pg. 5, Lns. 6-7; Ref: 20, Figs. 1 and 2; Pg. 8, Lns. 7-20, Ref: 330, Ref: 326, Fig. 4) An interface (Pg. 5, Lns. 18-20; Pg. 6, Lns. 2-18; Pg. 12, Lns. 28-30; Pg. 13 Lns. 20-25; Ref: 24, Figs. 1 and 4) to the separate color printer (Pg. 5, Lns. 21-30; Pg. 6, Lns. 1-30, Pg. 7, Lns. 1-9 Ref: 30) to which a digital image file, which is selected from the digital memory, is applied, (Pg. 9, Lns. 10-14; Pg. 11, Lns. 29-30, Pg. 15, Lns. 6-11; Ref: 650, Fig. 6) wherein the image processor is adapted to perform second processing on the selected digital image file before the selected digital image file is applied to the interface (Pg. 5, Lns. 8-20, Pg. 6, Lns. 10-30, Pg. 7, Lns. 1-8; Pg. 12, Lns. 1-30; Pg. 13, Lns. 1-30, Pg. 14, Lns. 1-30, Pg. 15, Lns. 1-30, Pg. 16, Lns. 1-6; Refs: 600-650) Fig. 6).

Independent claim 14 claims a digital camera for use with a separate color printer having predetermined characteristics. The camera comprises: a housing (Pg. 5, Lns. 1-20[2], Pg. 17, Lns. 1-12; Ref: None, Figs. 1 and 3); an image sensor adapted to capture analog image data (Pg. 4, Lns. 24-29; Pg. 7, Lns. 9-20; Ref: 12, Figs. 1 and 4); an analog-to-digital converter adapted to convert the analog image data captured by the image sensor to digital image data (Pg. 7, Lns. 26-29; Ref: 316, Fig. 4); an image processor adapted to perform first processing and compression of the digital image data to create a first-processed digital image file (Pg. 4, Lns. 24-30, Pg. 5, Lns. 1-2, Pg. 8, Lns. 2-6, Pg. 8, Lns. 21-30, Pg. 9, Lns.

[2] Fig. 1 illustrates a digital camera 10. A housing is not specifically called out with a reference number. In general, it is well understood that a housing is inherent in a digital camera. (See Final Rejection Pg. 4, Lns. 1 – 4.) However, in this matter, the presence of a housing is evident from the specification in that digital camera 10 is separately illustrated in Fig. 1 from the printer 30 which is illustrated in Fig.2 both providing interfaces to enable communication therebetween. Such interfaces are known to those of skill in the art as a place at which independent systems meet and act on or communicate with each other. Such independence indicates the use of a housing to contain each device. Further, the discussion at page 5, lines 8 – 20 related to Fig. 1, indicates that "according to the present invention, further processing necessary to enable an image to be printed is to be performed using the resources that are already in said camera 10" clearly indicating that such resources are within a housing.

1-21, Ref: 18, Figs. 1, 4 and 5). A digital memory is removably mounted in the camera housing (Pg. 7, Lns. 9-13; Fig. 4; Refs: 330, 14). A plurality of first-processed digital image files from the image processor are stored in the removable digital memory; to which a digital image file, which is user-selected from the digital memory, is applied, (Pg. 9, Lns. 10-14; Pg. 11, Lns. 29-30, Pg. 15, Lns. 6-11; Ref: 650, Fig.6). Wherein the image processor is adapted to perform second processing on the selected digital image file before the selected digital image file is applied to the interface (Pg. 5, Lns. 8-20, Pg. 6, Lns. 10-30, Pg. 7, Lns. 1-8; Pg. 12, Lns. 1-30; Pg. 13, Lns. 1-30, Pg. 14, Lns. 1-30, Pg. 15, Lns. 1-30, Pg. 16, Lns. 1-6; Refs: 600-650; Fig. 6).

Grounds of Rejection to be Reviewed on Appeal

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. Whether the proper diligence standard was used in evaluating a Declaration filed under 37 CFR 1.131?
2. Whether the Final Rejection used a correct standard in applying a "substantive nature" test in evaluating a Declaration filed under 37 CFR 1.131?
3. Whether Claims 1, 11 and 14 are anticipated under 35 U.S.C. 102(e) by Ogawa et al.?
    a. Whether claims 1 and 11 are anticipated by Ogawa et al.
    b. Whether claim 14 is anticipated by Ogawa et al.
4. Whether Claims 2-10 are obvious under 35 U.S.C. 103 over of Ogawa et al. in view of Ebner?
5. Whether claims 11-14 are obvious under 35 U.S.C. 103 over Ogawa et al. in view of Vogel et al.?

Arguments

1. **The Final Rejection committed reversible error in rejecting the Inventors' Declaration under 37 CFR 1.131 using a "reasonable diligence" standard of the type contemplated by 35 U.S.C. 102(g) and not the "due diligence" standard required under 37 CFR 1.131 part (b).**

Claims 1, 11, and 14 stand rejected under 35 U.S.C. 102(e) as being anticipated by Ogawa et al. U.S. Patent Application No. 2002/0080250 having a filing date of January 30, 1997. The applicants respectfully submit that Ogawa et al. does not constitute relevant prior art under 35 U.S.C. 102(e). Specifically, the applicants respectfully submit that they have established, by way of affidavits and corroborating documentation, conception of the invention prior to the United States filing date of the Ogawa et al. reference and due diligence by demonstrating a continuous sequence of activity toward constructively reducing the invention to practice by filing the parent of this patent application on April 4, 1997.

Ogawa et al. was filed on January 30, 1997. The Applicants have previously submitted an Inventors' Declaration under 37 CFR 1.131 and an Attorneys' Declaration under 37 CFR 1.131 establishing the claimed subject matter including at least the subject matter of claim 1 was conceived of at least by the date of August 9, 1996 which is a date earlier that the effective date of Ogawa et al.. Further, the Affidavit establishes a timely and diligent continuous sequence of acts beginning with an Invention Disclosure (August 9, 1996), which led to a memo forwarding the invention disclosure to attorney Sales (August 14, 1996), and delivery of the memo at the Eastman Kodak Patent Department (August 17, 1996). A prior art search was performed and the results submitted to the inventor (September 17, 1996) as indicated by a Memorandum forwarding the search results to inventor Small on that date. This led, in turn to a memorandum (November 18, 1996) wherein inventor Small submitted a two-page analysis of the prior art identified in the search. Thereafter, at the request of attorney Sales, inventor Small generated and submitted two pages of drawings depicting two embodiments (March 17, 1997). Just over two weeks later, the parent application of this application was filed (April 4th, 1997.)

The Final Rejection does not contend that there was a failure to constructively reduce the invention to practice or that there was any point in time wherein the inventor or attorney were not working on particular matters related to the invention. Instead, the Final Rejection simply asserts that the "Examiner holds that the two pages of simple sketches produced by the inventor on March 17, 1997 are not of such a substantive nature to give evidence of inventor diligence during

the critical time period from before January 30, 1997 to March 17, 1997." The sole authority cited for this is MPEP Section 2138.06. The first paragraph of MPEP Section 2138.06 states the following:

> *2138.06 "Reasonable Diligence" [R-1]*
> ***The diligence of 35 U.S.C. 102(g)** relates to reasonable "attorney-diligence" and "engineering-diligence" (Keizer v. Bradley, 270 F.2d 396, 397, 123 USPQ 215, 216 (CCPA 1959)), which does not require that "an inventor or his attorney drop all other work and concentrate on the particular invention involved." Emery v. Ronden, 188 USPQ 264, 268 (Bd. Pat. Inter. 1974). **(Emphasis Supplied)***

The applicants note that claims 1, 13 and 14 stand rejected under 35 U.S.C. 102(e) not 102(g). Specifically, the MPEP provides clear guidance as to how a rejection under 35 U.S.C. 102(e) can be overcome. This guidance is as follows:

> ***706.02(b) Overcoming a 35 U.S.C. 102 Rejection Based on a Printed Publication or Patent [R-3]***
>
> *A rejection based on 35 U.S.C. 102(b) can be overcome by:*
>
> ...
>
> *A rejection based on 35 U.S.C. 102(e) can be overcome by:*
>
> *(A) Persuasively arguing that the claims are patentably distinguishable from the prior art;*
>
> *(B) Amending the claims to patentably distinguish over the prior art;*
>
> *(C) Filing an affidavit or declaration under 37 CFR 1.132 showing that the reference invention is not by "another." See MPEP § 715.01(a), § 715.01(c), and § 716.10;*
>
> *(D) Filing an affidavit or declaration under 37 CFR 1.131 showing prior invention, if the reference is not a U.S. patent or a U.S. patent application publication claiming the same patentable invention as defined in 37 CFR *>41.203(a)<. See MPEP § 715 for more information on 37 CFR 1.131 affidavits. ....*

However, as is noted in 37 CFR 1.131 part (b):

> *the showing of facts [in a 131 affidavit] shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with **due diligence** from prior to said date to a subsequent reduction to practice or to the filing of the application. Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained." **(emphasis supplied)**.*

Accordingly, the Final Rejection appears to have rejected the Inventors' Declaration using a "reasonable diligence" standard that is appropriate in considering a rejection under 35 U.S.C. 102(g) instead of the "due diligence" standard required to support an affidavit under 37 CFR 1.131. As such, the Final Rejection clearly committed reversible error by failing to consider the supplied affidavit under the appropriate legal standard. For this reason alone, the Final Rejection is based upon an improper legal standard and should be reversed.

2. The Final Rejection committed reversible error in rejecting the Inventors' Declaration by imposing an unsupported "substantive nature" standard for an affidavit filed under 37 CFR 1.131 part (b).

As noted above, the Final Rejection does not contend that no work was done during the critical period between the filing of Ogawa et al. and the filing of the parent application. Instead, the Final Rejection posits that the preparation of two pages of drawings depicting two separate embodiments of the invention was not of such a "substantive nature to give evidence of inventor diligence during the critical time period from before January 30, 1997 to March 17, 1997." The nature of this rejection is somewhat unclear. It appears that the Inventors' Declaration has also been rejected because the drawings produced during a period between conception and reduction to practice do not meet some arbitrary threshold test that measures the amount of or quality of work done to generate such drawings.

However, the Final Rejection provides no record from which to discern what authority supports this "substantive nature" test. As a review of 35 U.S.C. 102(e) and 37 CFR 1.131 fails to demonstrate the presence of these words, the applicants are unable to find any authority for the proposition that the corroborating documents supplied in support of an affidavit under 37 CFR 1.131 must be of any particular degree of any such "substantive nature" in order to support a finding of due diligence.

Accordingly, it is the applicants position that the Final Rejection demonstrates further reversible error by failing to properly consider the supplied Affidavit on grounds that it did not meet the "substantive nature" test as the Final Rejection has failed to provide authority supporting the existence of such a test, and has failed to do other than summarily conclude that the evidence provided does not meet such a test.

Finally, it is respectfully submitted that due diligence has been shown by a continuous sequence of activity between conception and constructive reduction to practice and that for this reason Ogawa et al. does not constitute prior art under 102(e).

3. Ogawa et al. does not anticipate the subject matter of claims 1, 11 and 14:

The applicants respectfully submit that even if Ogawa et al. constituted prior art, Ogawa et al. would not anticipate any of claims 1, 11, or 14 as Ogawa et al. does not teach each limitation of the claim as is required under 35 U.S.C. 102(e).

It is well understood that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). An invention is anticipated if the same device, including all the claim limitations, is shown in a single prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. Perkin-Elmer Corp., 732 F.2d at 894, 221 USPQ at 673; Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771-72, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026, 79 L. Ed. 2d 687, 104 S. Ct. 1284 (1984). The identical invention must be shown in as complete detail as is contained in the patent claim. Jamesbury Corp., 756 F.2d at 1560, 225 USPQ at 256; Connell, 722 F.2d at 1548, 220 USPQ at 198. The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Accordingly, to the extent that Ogawa et al. does not disclose every element of claims 1, 11, and 14, Ogawa et al. does not anticipate these claims. Turning now to the Final Rejection of claim 1 it is posited that Ogawa et al. teaches the following elements:

> "*Ogawa et al. teaches a digital camera (Fig. 1, element 10a; paragraph 57, lines 1-4) for use with a separate color printer (Fig.1, element 11) having predetermined characteristics, said camera comprising: a housing because a housing is inherent in a digital camera.*

It is clear then that the Final Rejection relies upon inherency to establish the presence of a housing. However, as is claimed in claim 1, the camera comprises, in pertinent part, "a housing ... a digital memory in the housing, a plurality of first-processed digital image files from the image processor being stored in the digital memory." The Final Rejection, however, does not hold that it is inherent that a memory used to store images is within such a housing. Accordingly, one must look elsewhere to see where Ogawa et al. stores the first processed images.

Ogawa et al. describes data being stored in three places: a memory 10*e*, an external memory 10*l* and a data-holding unit 112. Images are stored only in the external memory 10*l* or in the data-holding unit 112. This is made clear in Ogawa et al. at page 2, paragraphs 0037 and 0039, wherein Ogawa et al. describes the use of memory 10*l* as follows:

> *[0037] The image-sensing apparatus main body 10 is communicable with a printer 11 via the external-device I/F unit 10k. In the memory 10e, storage areas are allocated to a communication-protocol management module 10f for managing communication protocol with the printer 11, a sample-table generating module 10m for generating a sample image table of a plurality of image data stored in the external storage device 10l, a print-control code generating module 10g for generating printer-control codes, a system management module 10n for managing the overall image sensing apparatus 10, and a sample table buffer 10o for storing the sample image table.*
>
> . . .
>
> *[0039] In the image-sensing and printing system, when the shutter button in the user I/F parts group 10i is pressed, video image data obtained by sensing by the image sensing unit 10a is stored, as digital image data, into the external storage device 10l in the form of image file. In the present embodiment, upon storing data into the external storage device 10l, image data obtained from image sensing is compressed by a method in accordance with the JPEG (Joint Photographic Coding Experts Group) standards.*

It is clear from this that the memory used to store processed and compressed images is an external storage device. The only logical purpose of the word "external" would be to establish that such an "external" memory, while operably associated with the image-sensing apparatus 10, is not physically within the image-sensing apparatus 10 and, therefore, is not within the inherent housing identified in the Final Rejection.

The Final Rejection separately contends that Ogawa et al. teaches a "digital memory in a camera housing, a plurality of first-processed digital image files from the image processor being stored in the removable digital memory at Fig. 1, element 10L; para. 84." The cited lines of Ogawa et al. (page 4, para. 84), however, state:

> *[0084] FIG. 10 shows a process procedure in the camera. In FIG. 10, description is made on the assumption that image data obtained by sensing by the image sensing unit 111 is stored in the data holding unit 112 (e.g., a memory card and a hard disk).*

This does not state where data holding unit 112 is located. Nor does it define data holding unit 112 as being within the housing as it is admitted that Ogawa et al. does not explicitly disclose such a housing. Instead, it will be appreciated that the Final Rejection further apparently contends that the structure characterized as "element 10L" and data holding unit 112 are the same structure and, to that extent, "element 10L" and data holding unit 112 are both embodiments of an *external storage device* 10*l*.

In contrast, as is claimed in claim 1, the digital memory used to store the plurality of first processed images is within the camera and therefore within the inherent housing provided by the camera which is consistent with what is disclosed on page 5 of the specification, namely:

> *According to the present invention, this further processing is performed using the resources which are already in camera 10. It is advantageous to perform all of the processing using the resources in camera 10 in order to avoid the additional expense of including similar resources in the printer. To effect such image processing in camera 10, the camera is provided with a parameter memory 22 and a printer interface 24, both to be described hereinafter.*

Accordingly, it is respectfully submitted that there has been no showing of anticipation with respect to claims 1 and 11 and that these claims and any claims that depend from these claims are allowable over Ogawa et al.

Similarly, Claim 14 is not anticipated by Ogawa et al. in that the digital memory of claim 14, while being removable is still within the camera.

Accordingly, for similar reasons to those stated above with respect to claim 1, it is respectfully submitted that there has been no showing of anticipation with respect to claim 14 and that claim 14 is therefore allowable.

4. Claims 2-10 are allowable under 35 U.S.C. 103 over Ogawa et al. in view of Ebner.

4A. A Prima Facie Case of Obviousness has not been met as to claims 2-10.

The Federal Circuit has recently discussed the standards for reviewing a whether a prima facie case of obviousness has been established, in a matter entitled In Re: Leonard R. Kahn (Fed. Cir. 04-1616, March 22, 2006). As cited in pertinent part therein,

A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the pertinent art. 35 U.S.C. § 103(a) (2000); Graham v. John Deere Co., 383 U.S. 1, 13-14 (1966). The ultimate determination of whether an invention would have been obvious is a legal conclusion based on underlying findings of fact. In re Dembiczak, 175 F.3d 994, 998 (Fed. Cir. 1999). . .

In assessing whether subject matter would have been non-obvious under § 103, the Board follows the guidance of the Supreme Court in Graham v. John Deere Co. The Board determines "'the scope and content of the prior art,'" ascertains "'the differences between the prior art and the claims at issue,'" and resolves "'the level of ordinary skill in the pertinent art.'" Dann v. Johnston, 425 U.S. 219, 226 (1976) (quoting Graham, 383 U.S. at 17). Against this background, the Board determines whether the subject matter would have been obvious to a person of ordinary skill in the art at the time of the asserted invention. Graham, 383 U.S. at 17. In making this determination, the Board can assess evidence related to secondary indicia of non-obviousness like "commercial success, long felt but unresolved needs, failure of others, etc." Id., 383 at 17-18; accord Rouffett, 149 F.3d at 1355. We have explained that:

[t]o reject claims in an application under section 103, an examiner must show an unrebutted prima facie case of obviousness . . . . On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.

Rouffett, 149 F.3d at 1355. ...

Most inventions arise from a combination of old elements and each element may often be found in the prior art. Id. at 1357. However, mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole. Id. at 1355, 1357. Rather, to establish a prima facie case of obviousness based on a combination of elements disclosed in the prior art, the Board must articulate the basis on which it concludes that it would have been obvious to make the claimed invention. Id. In practice, this requires that the Board "explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious." Id. at 1357-59. This entails consideration of both the "scope and content of the prior art" and "level of ordinary skill in the pertinent art" aspects of the Graham test.

As an initial matter, the Applicants respectfully submit that for the reasons stated above in parts 1 and 2, Ogawa et al. does not constitute prior art and therefore any combination incorporating Ogawa et al. cannot stand. Assuming only for the purposes of argument, that combinations including Ogawa et al. are permitted, the Applicants respectfully submit that there is sufficient evidence of prima facie obviousness because there is no motivation to combine the references in the manner described in the Final Rejection, and/or because the references in combination teach away from what is claimed.

4B. The references are not properly combined:

It will be noted that all obviousness rejections with respect to claims 2-10 ultimately rely upon elements that are identified as being taught by Ogawa et al. in combination with Ebner. However, even assuming for the purposes of this argument only, that Ogawa et al. should be considered, the construction of Ogawa et al. provided by the Final Rejection appears to be defective.

Viewed as a part of this combination, the Final Rejection contends that Ogawa et al. teaches:

> *"that the printer type is determined, processing corresponding to the printer type is performed (para. 50), and image data is converted into print codes that the printer can interpret (para. 60; para. 86 and 89, page description language). In other words, Ogawa et al., as a whole, teaches the camera determines the printer that is connected and converts image data into a format that is specific to the particular printer (Fig. 3, element S31b). Ogawa et al. does not teach an image file is converted to multi-tone values during second processing." (Final Rejection, page 6, paragraph 1)*

This over-generalizes what is taught by Ogawa et al. in that Ogawa et al. is offered as a solution that enables printing digital pictures without the need for a personal computer to act as an intermediate between a digital image sensing apparatus and a digital camera. (Ogawa et al. Para. 0001-0004) Accordingly, Ogawa et al. describes the use of a digital image sensing apparatus (such as a scanner, fax or camera) as a substitute for a personal computer to perform functions of the personal computer as well as the traditional functions of the

digital image sensing apparatus. This is evident from the types of image conversions that Ogawa et al. describes the camera as performing:

1. conversion of sensed data into a JPEG image that is stored in the external storage device 10*l* (Ogawa et al. paragraph 0039).
2. conversion of the image data from the external storage device 10*l* into a sample image table having images of a particular size (Ogawa et al. at Paragraphs 0054-0062).
3. converting the selected images to a size that is appropriate to the printer (Ogawa et al. Paragraph 55);
4. conversion of selected images into print codes that the printer can interpret by using selected programs (Ogawa et al. at Paragraph 0060); and
5. conversion of the selected images into a Page Delimited Format image (Ogawa et al. at Paragraph 0084).

Ogawa et al thus shows a digital image sensing apparatus that performs functions 1 and 2 that are conventionally performed by a digital image sensing apparatus, functions 3 and 4 that are conventionally performed by a personal computer that is connected to a printer and function 5 that is conventionally performed by a dedicated facsimile device or by a personal computer but not by a printer. Thus, what Ogawa et al. generally discloses is a system that uses a digital image sensing apparatus in lieu of a personal computer as the sender of a printer ready image to a printer.

Ebner provides a printing system that has been adapted to mitigate tenting deletions that occur in color xerographic printers. By way of overview, a printing system of Ebner uses a halftone processor that is driven to halftone selected areas of an image based on a selected halftone dot, wherein the halftone dot has the properties of maintaining a dot fill order of a desired dot, while also maintaining a pre-selected percentage of the dot as untilled space. In this sense, Ebner describes a printer that can print in a half tone manner and still provide a desired dot fill order. Thus, Ebner simply receives image files from a source such as a computer and prints them in a manner that avoids such tenting deletions. Specifically, Ebner notes:

> *With reference now to Fig. 1, which shows a general system requirement representing the goal of the invention, an electronic representation of a document (hereinafter, an image) is directed into a printing system for printing. The systems contemplated receive Page Description Language (PDL) files which describe the page to be printed. Particularly, a page described by a PDL will be defined by one or more objects which are described in terms of*

object type, size, color and position, on the page. Because the rendition of color is particular to a machine, color is defined in terms of device independent terms which may then be converted to printer specific signals at a PDL composer. (Ebner col. 4, lines 16-25).

Accordingly, in Ogawa et al. a digital image sensing apparatus is used to generate printer ready images. In both Ogawa et al. and Ebner, printers are described that interpret such printer ready images in order to determine how to print such an image. This interpretation includes converting colors in the printer ready image into printing instructions and actions that cause particular colors to be printed in particular locations. In essence, Ogawa et al. creates a digital image sensing apparatus that acts no differently in generating printer ready images than a personal computer, and the printer of Ebner simply interprets the printer ready images and prints them.

It will be appreciated that an examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art that would lead the individual to combine the relevant teachings of the references. In Re: Lee, 277, F.3d. 1338, Citing In Re: Fritch, 972 F.2d. 1260, 1265.

It will be further appreciated that every feature of Ebner cited in this combination is shown as being performed by a printer system and not by a separate personal computer. Neither Ogawa et al. nor Ebner suggest transferring any function of a conventional printer to such a personal computer or to a digital image sensing apparatus of Ogawa et al. Instead, one of ordinary skill in the art would not be motivated to do so in that such a transfer could result in a camera that might only be useful with a limited range of printers or a printer that could be operable only when connected to a limited class of cameras.

Turning now to the specific claims that stand rejected by way of this combination, it will be observed that the Final Rejection repeatedly ignores the problem addressed by Ogawa et al. and repeatedly suggests shifting printer functions to the digital image sensing apparatus without citing any motivation in Ogawa et al. to provide a digital image sensing apparatus that adopts any printer functions, and against the clear teaching in Ebner that some functions, including color determinations, should be made by the printer because of printer to printer variations.

Claims 2 - 6:

In claim 2, the color records of a selected digital image file are converted to multi-tone values during the second processing. Claim 2 stands rejected on grounds that Ogawa et al. teaches:

> *"that the printer type is determined, processing corresponding to the printer type is performed (para. 50), and image data is converted into print codes that the printer can interpret (para. 60; para. 86 and 89, page description language). In other words, Ogawa et al., as a whole, teaches the camera determines the printer that is connected and converts image data into a format that is specific to the particular printer (Fig. 3, element S31b). Ogawa et al. does not teach an image file is converted to multi-tone values during second processing."*
> *(Final Rejection, page 6, paragraph 1).*

The cited lines of Ogawa et al. (page 3, para. 50 and 60; and page 5, para. 86 and 89), merely establish that a printer type is obtained and further fail to establish that any information is obtained from the printer that would enable the digital image sensing apparatus to make color processing decisions. These lines state as follows:

> *[0050] At step S30b, the image sensing apparatus 10 receives the printer-type information by the communication- protocol management module 10f, and determines a program to generate printer-control codes by using the printer-type management table 20. In the present embodiment, in the printer-type management table 20 in FIG. 2, as three printer types a101, a202 and a b 101 are registered, the printer type is discriminated (steps S30c to S 30e) based on the printer- type information from the printer 11, and processing (any of steps S30f to S30h) corresponding to the printer type is performed. If the printer type informed from the printer 11 is not registered in the printer-type management table 20, the printer-control code generating module 10g on the image sensing apparatus 10 side is terminated (S30k) , and the communication with the printer 11 is terminated (S30 l) by the communication-protocol management module 10f. At this time, the display device in the user I/F parts group 10 i displays an error message."*
>
> *"[0060] Returning to FIG. 3, the printer-control code generating module 10g, that has received image data 44 and the file name 41 from the sample table data generated by the sample-table generating module 10m, converts the image data 44 and the file name 41 into print codes that the printer can interpret by using the selected program (S30o)."*

"[0086] At step S2, communication is performed with the external device 121 connected to the camera, and device information is obtained from the external device 121. More specifically, the CPU 116 sends a device-information request command via the communication unit 113 and the bus 114 to the external device 121. On the external device 121 side, the CPU 125 receives the device- information request command from the camera via the communication unit 124, and reads device information of the external device 121 and format information on image data format from the device-information holder 123. The CPU 125 transfers the read device information and format information via the communication unit 124 to the camera. FIG. 11 shows an example of device information. In FIG. 11, the device information includes device type data 141, which indicates the type of the external device, e. g., whether it is a printer or a facsimile, model data 142 indicating the model of the external device, format data 143 indicating the format of page description language or image data format, and format data 144 indicating the format of facsimile communication."

"[0089] In FIG. 11, it is indicated by the format data 143 and 144 that data to be transferred must be described in page description language LIPS III or LIPS IV. In FIG. 12, it is indicated that data transfer must be performed by using the MH or MR coding."

It will be appreciated that the information that is provided by the printer of Ogawa et al. is consistently characterized as a printer type information. The printer type information defined is said to indicate the "model of the external device, format data 143 indicating the format of page description language or image data format, and format data 144 indicating the format of facsimile communication." This information can fairly be described as computer related information which is information that would be useful to a computer in making decisions about how to put an image into a proper form for interpretation and processing by a printer. However, none of this information is useful in making decisions regarding multi-color tone, density levels, and the like for driving the printer. This further suggests the absence of any teaching or suggestion in Ogawa et al. of the digital image sensing apparatus for performing processing of the type that is typically performed by the printer.

Thus, Ogawa et al. does not appear to support the motivation offered in the Final Rejection for the combination of Ogawa et al. with

Ebner with respect to this claim. Specifically, in the Final Rejection, Ebner teaches:

> *"a color correction process (Fig.1, elements 10 and 12) in which page description language files are decomposed into a plurality of CMYK separations before being sent to a half-toner (Fig. 1, element 12) in preparation for printing. One of ordinary skill in the art would have converted an image file into multi-tone values using the half-toner in order to reduce the number of gray values of an image, typically 256, into two values suitable for printing (col. 4, lines 43-51). As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have converted an image file into multi-tone values using the half-toner in order to reduce the number of gray values of an image, typically 256, into two values suitable for printing (col. 4, lines 43-51)."*
> *(Final Rejection, page 6,paragraph 2)*

What is provided here is merely a motivation to convert image files using a multi-tone process. However, Ebner does this without being combined with Ogawa et al. as Ebner discloses a half-toning printing system and the use of a half-toning process that is within in the printing system and not elsewhere.

In sum, the Final Rejection fails to provide a prima facie case of obviousness because Ogawa et al. only suggests moving computer functions not printer functions to the digital sensing apparatus and further only suggests transmitting computer related information from the printer to digital sensing apparatus. While Ebner suggests the need to make printer specific color determination and provides a way to make a printing system perform such determination without external assistance. Thus, there is no motivation to make the combination suggested by the Final Rejection. For this reason, claim 2 is further believed to be allowable over the cited combination.

Similar reasoning applies to claim 3. Specifically, there exists no motivation to combine Ogawa et al. and Ebner to further determine multi-tone values using a predetermined number of density levels in a manner that does so anywhere but within the printer. In addition, there is no teaching or suggestion in either Ogawa et al. or Ebner that would suggest providing the predetermined number of density levels over the interface as is proposed in the Final Rejection. This is because Ebner discloses performing functions of this type in the printer based upon a printer ready file of the type provided by Ogawa et al. Further, Ogawa et al. discusses the transfer of computer information from the printer, but not any information that would inform such a process.

This same reasoning also applies to claims 4, 5, and 6.

Claims 7 – 10:

With respect to claim 7, the Final Rejection contends that Ogawa et al. discloses converting a selected image file into a page description language. Ebner is then cited for teaching that a separate color printer uses for ink colors. Official Notice is then relied upon to establish that it is known to convert a (PDL) page description language into a color that is used in a printer engine to print a color. However, it is important to note that Official Notice has not been provided to suggest that it was known to do so in any device other than a printer and more specifically in a digital camera. Accordingly, here again, there has been no showing of any art wherein these printer functions are performed by another device, as typically the central purpose of a page description language is to define an image in a form that is specially adapted for use by a printer. Further, there has been no showing of any motivation for one skilled in the art to devise a system wherein an image stored in a digital camera is converted into a PDL and then convert it into a color separation and then provide the color separation to a printer.

Claims 8, 9 and 10 are believed to be allowable for the same reasons stated with respect to claim 7.

5. Claim 12 is allowable over the combination of Ogawa et al. and Vogel et al.:

Claim 12 stands rejected under 35 U.S.C. 103 as being obvious over Ogawa et al. in view of Vogel et al. For the reasons state above, Ogawa et al. does not constitute prior art, and even assuming only for the purpose of argument, that Ogawa et al. merits consideration, it is respectfully submitted that there has been insufficient evidence of a prima facie case of obviousness, in that there is no motivation to combine the references in the manner claimed.

Specifically it will be appreciated that claim 12 claims as follows:

A digital camera as set forth in Claim 1 wherein the first processing includes:

interpolation to provide red, green and blue image data values to provide red, green, and blue color planes;
color correction of the red, green, and blue color planes;
image compression; and
the second processing includes decompression of the selected digital image file before the selected digital image file is applied to the interface.

In rejecting claim 12, the Final Rejection concedes that Ogawa et al. does not teach, during first processing, interpolation to provide red, green, and blue color planes and color correction of the red, green and blue color planes. However, the Final Rejection contends that Vogel et al. teaches interpolation to

provide red, green, and blue image data values to provide red, green, and blue color planes citing Fig. 4, element 34, Col. 5 lines 51-61 and color correction of the red. green and blue color planes Fig. 4, element 34; col. 5, lines 56-61.

It will be appreciated that element 34 of Vogel et al. is explicitly described being a subcomponent of a peripheral digital processor 12 which, as described, can be part of a conventional programmed computer. (Col. 5, lns. 1-11), and which is further described on the parts list as follows "12 image processing external to camera (peripheral digital processor). It will also be noted that peripheral digital processor 12 is consistently shown external to camera 10 in Figs. 4, 5, and 6 of Vogel et al.

Accordingly, here again, the Final Action combines Ogawa et al. with a reference that discloses color-processing functions that are to be performed by an external output system.

Further, it will be appreciated that, in Vogel et al., the camera provides data from matrix coefficient memory 36 to the peripheral digital processor so that the peripheral digital processor 12 can make color corrections based upon the provided data. This does not appear to be consistent with the concept of transferring data from the printer to the camera and performing color corrections within the digital camera and in this regard it can be said that it teaches against combination with Ogawa et al. in that respect.

To the extent that such a combination were to be made, the logical combination would be to provide color correction information to the printer so that the printer could make camera specific adjustments to images when "interpreting" the PDL or other format image provided by the camera to the printer. A printer such as the one in Ebner could be used for this purpose.

Accordingly it is believed that claim 12 is allowable over the cited combination.

6. Claim 13 is allowable over the combination of Ogawa et al., Vogel et al. and Ebner:

Claim 13 depends from claim 12, and stands rejected in part on the grounds cited with respect to claim 12 and further restates many of the grounds for rejection cited above. For the reasons stated above with in parts 1-5, the Applicants respectfully submit that claim 13 is allowable over the combination

Summary

The central reference used to support all rejections in the Final Rejection is Ogawa et al. The applicants have demonstrated by way of Declarations and Affidavits filed by inventor Small and Attorney Sales, prior conception and a logical flow of activity demonstrating due diligence from the time of conception to the time of filing of the parent application. The Final Rejection does not accept the affidavit and offers little authority or analysis supporting the failure to do so. The Final Rejection appears to use improper legal standards in examining the Affidavit and Declarations and as such reversal appears to be required.

Assuming for the purpose of argument only that Ogawa et al. merits consideration, Ogawa et al. does not support the rejections made. As an initial matter Ogawa et al. is generally directed to using a digital image capture apparatus to provide images to a printer in the same manner that a personal computer does in order to print without a personal computer. However, Ogawa et al. does not disclose a digital memory in a camera housing with a plurality of first-processed digital image files from the image processor being stored in the digital memory. Instead Ogawa et al. discloses the storage of image files in an external memory. Further Ogawa et al. discloses only transferring information from a printer to a personal computer of a type useful in formatting images for printing but does not suggest providing information that is of a type that is used to convert images into control signals of the type that drive a printer engine. Instead, Ogawa et al. makes clear that the data provided to the printer must be interpreted by the printer.

The combination of Ogawa et al. with Ebner does not address these problems. Ebner describes a printer system that receives image files in a printer ready format and that interprets the printer ready image files to form printed colors in a manner that avoids a "tenting" artifact in the printed image. Ebner performs a variety of color processing functions in doing so, but all of these functions are performed at the printer. Neither Ebner nor Ogawa et al. provide any motivation to move the functions of the Ebner printer system away from the printing system and, viewed as a whole teach one of skill in the art to use the Ogawa et al system to provide images that the printer system of Ebner can then interpret.

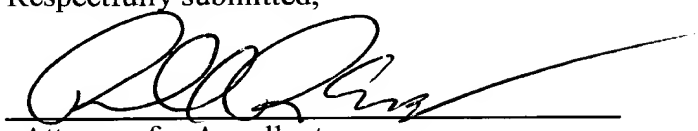
Vogel et al. also demonstrates a camera system that provides images that are then color processed by an external processing system. In Vogel et al. the camera provides data that is used by the external processing system to enable camera specific color corrections to be performed by an output system. Thus, Ebner and Vogel et al. show external output systems that are adapted to perform

secondary processing of images provided by a camera. Ogawa et al. fails to suggest moving functions from such an output system into a camera. Accordingly, one of skill in the art will have no motivation and no teaching to combine Ogawa et al. with Ebner and/or Vogel et al. in the manner asserted by the Examiner.

Conclusion

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims 1-14.

Respectfully submitted,



Attorney for Appellants
Registration No. 40,802

Roland R. Schindler II/jrk
Telephone: 585-588-2736
Facsimile: 585-477-1148
Enclosures

Appendix I - Claims on Appeal

1. A digital camera for use with a separate color printer having predetermined characteristics, said camera comprising:

a housing;

an image sensor adapted to capture analog image data;

an analog-to-digital converter adapted to convert the analog image data captured by the image sensor to digital image data;

an image processor adapted to perform first processing and compression of the digital image data to create a first-processed digital image file;

digital memory in the camera housing, a plurality of first-processed digital image files from the image processor being stored in the digital memory; and

an interface to the separate color printer to which a digital image file, which is selected from the digital memory, is applied, wherein the image processor is adapted to perform second processing on the selected digital image file before the selected digital image file is applied to the interface.

2. A digital camera as set forth in Claim 1, wherein color records of the selected digital image file are converted to multi-tone values during said second processing.

3. A digital camera as set forth in Claim 2, wherein the multi-tone values are determined using a predetermined number of density levels provided by the separate color printer over the interface.

4. A digital camera as set forth in Claim 3, wherein the multi-tone values are determined using a predetermined density for each of the density levels.

5. A digital camera as set forth in Claim 1, wherein color records of the selected digital image file are processed during said second processing to provide ink limiting.

6. A digital camera as set forth in Claim 5, wherein the ink limiting is effected using type of printer, ink, and receiver media information provided by the separate color printer over the interface.

7. A digital camera as set forth in Claim 1, wherein:

the separate color printer uses four ink colors; and

the color records of the selected digital image file are converted to three image planes and are color corrected during said second processing to provide a set of color planes corresponding to each ink color of the separate color printer.

8. A digital camera as set forth in Claim 7, wherein the provided set of color planes corresponding to each ink color of the separate color printer include at least four colors.

9. A digital camera as set forth in Claim 7, wherein the provided set of color planes corresponding to each ink color of the separate color printer include light cyan, dark cyan, light magenta, dark magenta, yellow, and black.

10. A digital camera as set forth in Claim 1, wherein:

the separate color printer uses four ink colors;

the color records of the selected digital image file are converted to three image planes; and

sequentially during said second processing:

the three image planes are color corrected to provide a set of color planes corresponding to each ink color of the separate color printer;

color records of the user-selected digital image file are processed to provide ink limiting; and

color records of the user-selected digital image file are converted to multi-tone values.

11. A digital camera as set forth in Claim 1 wherein:

the housing includes a color image display for providing user-observable images of first-processed digital image files stored in the removable digital memory; and

user controls coupled to the processor for selecting a digital image file to be second processed by said image processor.

12. A digital camera as set forth in Claim 1 wherein the first processing includes:

interpolation to provide red, green and blue image data values to provide red, green, and blue color planes;

color correction of the red, green, and blue color planes;

image compression; and

the second processing includes decompression of the selected digital image file before the selected digital image file is applied to the interface.

13. A digital camera as set forth in Claim 12 wherein:

the separate color printer uses four ink colors;

the color records of the user-selected digital image file are converted to three image planes; and

sequentially during said second processing:

the decompression of the selected digital image file is effected;

the three image planes and are color corrected to provide a set of color planes corresponding to each ink color of the separate color printer;

color records of the user-selected digital image file are processed to provide ink limiting; and

color records of the selected digital image file are converted to multi-tone values.

14. A digital camera for use with a separate color printer having predetermined characteristics, said camera comprising:

a housing;

an image sensor adapted to capture analog image data;

an analog-to-digital converter adapted to convert the analog image data captured by the image sensor to digital image data;

an image processor adapted to perform first processing and compression of the digital image data to create a first-processed digital image file;

digital memory removably mounted in the camera housing, a plurality of first-processed digital image files from the image processor being stored in the removable digital memory; and

an interface to the separate color printer to which a digital image file, which is user-selected from the digital memory, is applied, wherein the image processor is adapted to perform second processing on the user-selected digital image file before the user-selected digital image file is applied to the interface.

Appendix II - Evidence

NONE

Appendix III – Related Proceedings

NONE